

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-13 (canceled).

Claim 14 (new). A process for producing a solder mask on a printed circuit board, comprising the steps:

- a) coating of a circuit board with a layer of a photocrosslinkable composition comprising:
 - A1) a linear, crosslinkable polyurethane obtained from monomers comprising
 - i) at least one diisocyanate having 2 to 30 carbon atoms;
 - ii) at least one aliphatic or cycloaliphatic diol having 2 to 30 carbon atoms, to whose carbon chain one or more carboxyl groups have been covalently bonded, and some or all of the carboxyl groups have been esterified with an olefinically unsaturated C₃-C₈ alcohol or with a glycidyl ester of an olefinically unsaturated C₃-C₈ carboxylic acid; and
 - iii) optionally at least one aliphatic or cycloaliphatic diol having 2 to 30 carbon atoms, to whose carbon chain at least one carboxyl group is covalently bonded;
 - A2) an initiator for thermally crosslinking olefinic groups and/or a photoinitiator; and
 - A3) optionally a diluent;
- b) drying of the layer on the circuit board;
- c) imagewise exposure of the layer under a negative photomask or by laser inscription;
- d) treatment of the layer with a developer for removing unexposed parts to produce the solder mask; and
- e) optionally heat-curing of the solder mask.

Claim 15 (new). A process according to claim 14, wherein the photocrosslinkable composition additionally contains:

A4) a polymeric binder.

Claim 16 (new). A process according to claim 14, wherein the photocrosslinkable composition additionally contains:

A5) one or more crosslinking agents which are capable of reacting with the carboxyl group.

Claim 17 (new). A process according to claim 16, wherein the crosslinking agent is a polyepoxide having at least 2 epoxide groups.

Claim 18 (new). A process according to claim 17, wherein the photocrosslinkable composition additionally contains a polycarboxylic acid or carboxylic anhydride for thermally crosslinking the polyepoxide.

Claim 19 (new). A process according to claim 14, wherein the linear, crosslinkable polyurethane is obtained from additionally using as monomer

iv) at least one aliphatic, cycloaliphatic or cycloaliphatic-aliphatic diol, or at least one oligomeric or polymeric oxalkylene glycol, or a polyesterdiol, or a polycarbonatediol, or a polylactonediol or a diol based on polybutadiene or polyisoprene.

Claim 20 (new). A linear, crosslinkable polyurethane obtained from monomers comprising:

- a) at least one diisocyanate having 2 to 30 carbon atoms;
- b) at least one aliphatic or cycloaliphatic diol having 2 to 30 carbon atoms, to whose carbon chain one or more carboxyl groups have been covalently bonded, and some or all of the carboxyl groups have been esterified with an olefinically unsaturated C₃-C₈ alcohol or with a glycidyl ester of an olefinically unsaturated C₃-C₈ carboxylic acid;

- c) a polyesterdiol, or a polycarbonatediol, or a polylactonediol or a diol based on polybutadiene or polyisoprene; and
- d) optionally at least one aliphatic or cycloaliphatic diol having 2 to 30 carbon atoms, to whose carbon chain at least one carboxyl group is covalently bonded.

Claim 21 (new). A linear, crosslinkable polyurethane according to claim 20, which is obtained from additionally using as monomer:

- e) at least one aliphatic, cycloaliphatic or cycloaliphatic-aliphatic diol, or at least one oligomeric or polymeric oxaalkylene glycol.

Claim 22 (new). A composition comprising:

- a) a crosslinkable polyurethane according to claim 20;
- b) an initiator for the thermal crosslinking of the olefinic groups and/or a photoinitiator, or
- c) optionally a diluent.

Claim 23 (new). A composition according to claim 22, which additionally contains:

- d) a polymeric binder.

Claim 24 (new). A composition according to claim 22, which additionally contains crosslinking agents which are capable of reacting with a carboxyl group.

Claim 25 (new). A composition according to claim 24, wherein the crosslinking agent is a polyepoxide having at least 2 epoxide groups.

Claim 26 (new). A composition according to claim 25, which additionally contains a polycarboxylic acid or carboxylic anhydride for thermally crosslinking the polyepoxides.

Claim 27 (new). A moulding produced by curing a composition comprising:

- a) a crosslinkable polyurethane obtained from monomers comprising:
 - i) at least one diisocyanate having 2 to 30 carbon atoms;

- ii) at least one aliphatic or cycloaliphatic diol having 2 to 30 carbon atoms, to whose carbon chain at least one carboxyl group is covalently bonded, and some or all of said carboxyl groups have been esterified with an olefinically unsaturated C₃-C₈ alcohol or with a glycidyl ester of an olefinically unsaturated C₃-C₈ carboxylic acid;
 - iii) a polyesterdiol, or a polycarbonatediol, or a polylactonediol or a diol based on polybutadiene or polyisoprene; and
 - iv) optionally at least one aliphatic or cycloaliphatic diol having 2 to 30 carbon atoms, to whose carbon chain at least one carboxyl group is covalently bonded;
- b) an initiator for the thermal crosslinking of the olefinic groups and/or a photoinitiator; and
 - c) optionally a diluent.